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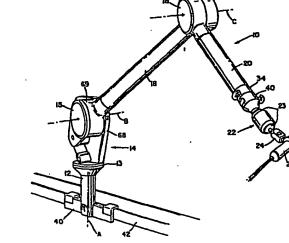
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Arm device for adjustable positioning of a medical instrument.

An instrument-supporting, articulated device has a distal end capable of supporting an instrument in the region of a surgical operating site. The device has at least one joint (15) that supports a movable distal support element (10) relative to a proximal support, the being joint associated with a mode selector. The joint has structure capable, upon selection of a first mode of operation by the selector, of enabling relatively free motion of the joint for achieving a desired position of the instrument and the joint

has structure capable, upon selection of a second mode of operation by the selector, to set the position of the instrument in space with lightly loaded restraint. The lightly loaded restraint is of a value that, while the second mode continues to be selected, the user may adjust the position of the instrument by application of a light force to the instrument and upon release of such light force by the user, the instrument will remain in the newly adjusted position.



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P: intermediate document
T: theory or principle underlying the invention

## **EUROPEAN SEARCH** REPORT

Application Number

EP 88 10 8411

	Citation of docume	nt with indication, where appropr	late,	Relevant	CLASSIFICATION OF THE	
ategory		f relevant passages	·	to claim	APPLICATION (Int. CI.5)	
A	US-A-4 548 373 (KON * claim 1; figure 1 *	iura)	-	1,18	A 61 B 19/00	
A	US-A-4 345 847 (SCH * claim 1; figures 1-3 *	IFF et al.)		1,18		
A	US-A-4 185 801 (PLYI *claim 1; figures 1-3 *	мотн)		1,18		
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